

## **DRAINAGE GUIDELINES FOR PREPARATION OF BUILDING PLANS**

Building plans are reviewed for compliance with Sections of the Los Angeles County Building Code (LACBC), Los Angeles County Residential Code (LACRC), Los Angeles County Green Building Code (LACGBC) and other County ordinances. These laws mandate that a building permit not be issued unless the structure is adequately protected from flood hazard and/or inundation.

Furthermore, no structure may impede the flow of a naturally occurring watercourse. The following information is provided to assist the applicant in completing the processing of building plans with respect to drainage.

1. The plan should include pertinent data relating to the site drainage and configuration of the development including:

- a. Vicinity map with site address and, in remote locations, route and mileage distances from nearest paved street and paved cross street.
- b. All property lines to scale, or if scale is approximate, give lot line dimensions.
- c. Location of existing structure(s) and / or easements, if any, and location of proposed structures covered by this permit with dimensions from property line.
- d. Existing and proposed contours and pertinent elevations including off-site elevations to establish contributory drainage conditions and to show if cut or fill will be required to construct building(s).
- e. Existing watercourses and drainage paths with arrows, and elevations when needed, to indicate the direction of flow.
- f. Finished pad and finished floor elevation(s) of proposed structure(s) and the description and location of the applicable benchmark.
- g. Existing and proposed on-site drainage facilities (paved or unpaved swales, pipes, gutters, down drains, velocity reducers, etc.) and pertinent off-site drainage facilities. Indicate how the site grading or drainage system will manage surface water.
- h. Provide a minimum grade fall of 6 inches within the first 10 feet from foundation wall. (R401.3 – See allowable exceptions)

2. For minor drainage contributing to the site flowing in a uniform “sheet flow” pattern, a common solution is to elevate the floors a sufficient distance (8 inches minimum) above the finish grade to keep storm waters out of the structure(s). (See BCM 2304.11.2 Article1)

3. If elevation of the floors is not practical, removal of the sheet flow is required by the construction of adequate drainage devices. Complete details for these devices must be shown on the plans. These drainage devices shall not alter the existing drainage pattern on adjacent properties without the permission of all the affected property owners.

4. If the applicant plans to build adjacent to a watercourse, in a flood plain, or adjacent to any flood hazard, a licensed Civil Engineer must be retained to prepare engineered plans for removing the hazard. A separate hydrology study is generally required to properly evaluate the potential flood hazard as well as size any mitigating drainage facilities. (LACRC R322.1.4.1) (LACBC 1612.3.1)

5. Structures which are proposed within the boundaries of any County adopted floodway and/or in a Federal Emergency Management Agency (FEMA) flood zone must comply with the National Flood Insurance Program. Principal requirements include mandatory purchase of flood insurance as a condition of obtaining loans from a federally supervised lending institution and maintaining the lowest floor elevation for future construction above the 100-year flood level. However, the Federal requirements are typically a minimum and more restrictive County requirements often apply. LACRC Table R301.2(1) (LACBC 1603.1.7 & 1612.5)

6. Approvals may be required from other agencies including but not limited to the U.S. Army Corps of Engineers, California Department of Transportation, and the State Department of Fish and Wildlife. All approvals are required prior to commencing work within the governing agencies rights of way or jurisdiction. Approval may be required prior to Building Plan approval.

7. If the proposed development unavoidably changes the drainage conditions on adjacent property, off-site improvements and/or drainage acceptance covenant will be required. Covenants must be signed by affected owner(s), notarized, and recorded prior to plan approval.